A.4. Supplementary experiment: Speeded classification of global properties

In order to compare the time-unlimited rankings to the speeded categorization task of Experiment 2, it is necessary to show that global properties can be perceived rapidly by human observers.

In a supplementary experiment, 20 individuals (8 male) completed a speeded binary judgment on global properties. The speeded classification was performed in a blocked design. At the beginning of the block, the participant would be given a global property pole (i.e. “hot” or “large depth”). Images were presented one at a time for 20, 40, 60 or 80 milliseconds (randomized within the block) followed by a 1/*f* noise mask. Participants were instructed to respond as quickly and accurately as possible with a key press (“a” for yes, “l” for no) as to whether each image matched the global property pole for the category given (e.g. is this image a “cold” scene?). As many images had intermediate values for any given global property, no feedback was given.

Here, we computed the average “yes” response from the 20 observers for each image, giving a proxy for how much that image resembled the global property pole. We correlated these values for the ranking on those images from Experiment 1. The mean correlation of the speeded classification to the hierarchical rankings was 0.82, ranging from 0.70 for concealment to 0.96 for temperature (all significant). There were no significant differences in the correlation coefficients for the four different presentation times ($t(3) < 1$) indicating even a 20 ms presentation is sufficient to estimate these global properties, and that global property rankings given from the time-unlimited hierarchical rankings are comparable to what participants can do in a time limited situation.

Furthermore, for each property, we took as ground truth the top and bottom 5% of ranked images and calculated the accuracy of making global property judgments on these images with a 20 ms masked presentation time. We found extremely high performance: the mean for all global properties was 94.1%, ranging from 92.5% for *concealment* to 98% for *transience*.